

REMARKS

Claims 1-3 are pending in the present application, with claim 1 being the sole independent claim. In this Amendment, claim 1 has been amended. Applicants submit that no new matter has been introduced by this Amendment.

The Presently-Claimed Invention

The presently-claimed invention relates to a multilayer paint substitute film including a clear coat layer, a color coat layer in which metallic pigments are dispersed, and an adhesive layer, wherein the color coat layer further includes orientation inhibitors for inhibiting orientation of the metallic pigments.

Claim Rejections Under 35 U.S.C. §§ 102/103

Claims 1 and 2 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as allegedly being obvious over Mientus et al. (U.S. Patent No. 6,770,360, hereinafter "Mientus"). Applicants respectfully traverse this rejection.

Mientus relates to multilayered thermoplastic polymer films used in making signs, which may be applied to a substrate. The films include a core layer that comprises at least one polyolefin, and optionally includes one or more of a light stabilizer, a pigment, other thermoplastic polymers, and processing additives. At least one skin layer is provided on the core layer, which is resistant to abrasives. The skin layer may contain antiblock additives such as natural silica, diatomaceous earth, synthetic silica, glass spheres, ceramic particles, etc. (See Mientus, col. 9, lines 35-39.) Each of the core

and skin layers may be oriented or unoriented. A clear topcoat may be provided on the skin layer, and a pressure sensitive adhesive layer may also be provided.

The Office Action takes the position that the glass spheres and silica of Mientus are orientation inhibitors, stating that silica is a known extender. Applicants respectfully disagree. The glass spheres or silica provided in the outer skin layer of Mientus are not orientation inhibitors, because they are not interposed among the particles of pigment provided in the core layer of Mientus. Mientus fails to disclose or suggest the presence of a pigment and an orientation inhibitor within the color coat layer of a multilayered thermoplastic polymer film. Instead, Mientus discloses that a core layer may include pigments, and that an outer skin layer may include glass spheres or silica in order to prevent the tendency of the film to stick together when provided in roll form.

Applicants therefore submit that the multilayer paint substitute films of claims 1 and 2 are not anticipated by and/or unpatentable in view of Mientus, and respectfully request that this ground of rejection be withdrawn.

Claims 1-3 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Mientus in view of Fritz (U.S. Patent Publication No. 2003/0027919 A1) and further in view of Huyhrechts et al. (U.S. Patent Publication No. 2004/0116645 A1, hereinafter "Huyhrechts") and Good et al. (U.S. Patent No. 5,731,374, hereinafter "Good").

The deficiencies of Mientus with respect to the presently-claimed invention are summarized above.

Fritz discloses a coating composition having a sparkling sheen that is provided by including randomly-shaped chips of glass with a particle size ranging from 1 μm to 30 μm and glass beads having a diameter of from 0.1 μm to 10 μm . (See Fritz,

Abstract and paragraphs [0020] and [0022].) Flaky pigments may also be included in the composition. The carrier for the glass material, glass beads, and flaky pigments is a coating, film-forming resin which may be of the curable or lacquer type. (See Fritz, paragraph [0062].) The coating may be applied to a substrate, such as an automobile outer panel, by providing a base or primer coat and then forming a luster coat thereon using the coating composition. A clear top coat may be provided on top of the luster coat. The coatings may be applied by rotary atomization, air atomization, roll coater application, or electrodeposition.

Huyhrechts discloses coating compositions including a hydroxy-functional polyester, an optional hydroxy-functional binder, and a cross-linking agent. (See Huyhrechts, Abstract.) Pigments and/or extenders may also be provided in the coating compositions, and silicon dioxide, barium sulfate, talcum, aluminum silicate, and magnesium silicate are included as examples of extenders. (See Huyhrechts, paragraph [0037].) The coating compositions may be applied by known processes, including spraying.

Good discloses an organic, solvent-based paint including a ceramic or inorganic insulative component, where the paint resists thermal loading and thermal loss. The paint includes a high refractive index pigment and an extender, where the extender may include talc, silica, clay, mica, and the like, where the particles may be from about 3 μm to 5 μm in diameter. (See Good, col. 3, lines 40-48.) The paint may be applied to a suitable substrate by roll coating, brushing, rolling, sponging, spraying, and so forth.

The Office Action recognizes that Mientus does not disclose the average diameter of the orientation inhibitor, and has relied upon Fritz for its disclosure of

randomly-shaped chips of glass having a particle size ranging from 1 μm to 30 μm , and glass beads having a diameter of from 0.1 μm to 10 μm . Huyhrechts is relied upon to support the position that silicon dioxide may be used as an extender for pigments. Good is relied upon for its disclosure of using extender particles having a size of from about 3 μm to 5 μm in diameter. The Office Action has taken the position that providing micronized inorganic components in a polymeric composition is considered routine absent a showing to the contrary.

However, Applicants submit that claims 1-3 are not unpatentable over any combination of Mientus, Fritz, Huyhrechts, and Good. Mientus does not disclose any orientation inhibitors, and fails to disclose or suggest the presence of pigments and orientation inhibitors in the same color coat layer of a multilayered thermoplastic polymer film. Fritz discloses chips of glass and glass beads provided in the same coating composition as flaky pigments. Huyhrechts discloses that extenders may be provided in the same coating composition as pigments. Good discloses that extenders may be provided in a paint containing pigments. However, Fritz, Huyhrechts, and Good all fail to disclose that the coating composition is a multilayered paint substitute film comprising a color coat layer including metallic pigments and orientation inhibitors, a clear coat layer, and an adhesive layer.

Further, one skilled in the art would not be motivated to modify the multilayered film of Mientus to include the glass chips, glass beads, and extenders used in the liquid coating compositions of Fritz, Huyhrechts, and Good to arrive at the presently-claimed invention.

Applicants therefore submit that the multilayer paint substitute films of claims 1-3

are not unpatentable over the combination of Mientus, Fritz, Huyhrechts, and Good, and respectfully request that this ground of rejection be withdrawn.

Claims 1-3 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Ellison et al. (U.S. Re 35,970, hereinafter "Ellison") in view of Mientus, Huyhrechts, Good and Fritz.

The deficiencies of the combination of Mientus, Huyhrechts, Good, and Fritz are summarized above.

Ellison discloses molded articles having contoured, decorative outer surfaces, which are prepared by adhering a decorative surfacing film to one side of a molded polymer substrate. The molded articles are said to be particularly suited for use as body panels for automobiles. The decorative surfacing film includes a substantially molecularly-unoriented, weatherable, cast film having pigments uniformly distributed therein, with a bonding layer formed on the inner surface of the cast film. (See Ellison, col. 3, lines 36-40.) A glossy finish may be obtained by providing a combination of layers, including an outer layer that is transparent, and an underlying opaque layer containing metallic pigments. (See Ellison, col. 4, lines 23-29.) The cast film may be formed from fluoropolymers, acrylate polymers, urethane polymers, and blends thereof. (See Ellison, col. 4, lines 38-40.) Preferably, the cast film maintains a paint-like appearance when stretched and elongated, and does not stress-whiten.

The Office Action alleges that Ellison discloses a pigmented, unoriented polymeric film, but fails to disclose the presence of orientation inhibitors. Mientus is cited for its alleged use of antiblock additives such as glass spheres and silica. Huyhrechts is relied upon for support of the Examiner's position that silicon dioxide may

be used as an extender for pigments. Good is relied upon for its disclosure of using extender particles having a size of from about 3 μm to 5 μm in diameter. Fritz is relied upon for disclosing randomly-shaped chips of glass with a particle size ranging from 1 μm to 30 μm , and/or glass beads having a diameter of from 0.1 μm to 10 μm .

Applicants submit that claims 1-3 are not unpatentable over any combination of Ellison, Mientus, Huybrechts, Good, and Fritz. Ellison fails to disclose or suggest providing an orientation inhibitors in a pigmented film layer. Mientus also fails to disclose or suggest the presence of both a pigment and an orientation inhibitor within a core layer. Instead, Mientus discloses that the core layer may include pigments, and that a separate outer skin layer may include glass spheres or silica in order to prevent the tendency of the film to stick together when provided in roll form. The glass spheres or silica provided in the outer skin layer of Mientus are not orientation inhibitors because they are not interposed among the particles of pigment provided in the core layer of Mientus. The deficiencies of the combination of Ellison and Mientus are not remedied by further combination with any of Huybrechts, Good, and Fritz. Huybrechts discloses that extenders may be provided in the same coating composition as pigments. Good discloses that extenders may be provided in a paint containing pigments. Fritz discloses chips of glass and glass beads provided in the same coating composition as flaky pigments. However, Huybrechts, Good, and Fritz also fail to disclose or suggest that the coating composition is a multilayered paint substitute film comprising a color coat layer including metallic pigments and orientation inhibitors, a clear coat layer, and an adhesive layer.

Further, Applicants submit that one skilled in the art would not be motivated to

modify the multilayered films of Ellison and Mientus to include the glass chips, glass beads, and extenders used in the liquid coating compositions of Fritz, Huyhrechts, and Good to arrive at the presently-claimed invention.

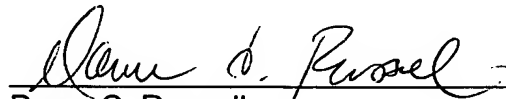
Applicants therefore submit that the multilayer paint substitute films of claims 1-3 are not unpatentable over the combination of Ellison, Mientus, Fritz, Huyhrechts, and Good, and respectfully request that this ground of rejection be withdrawn.

CONCLUSION

In view of the above amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance of the claims are earnestly solicited. Should the Examiner believe anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the Applicants' undersigned attorney at the telephone number listed below.

In the event this paper is not deemed timely filed, Applicants respectfully petition for an appropriate extension of time. The Commissioner is authorized to charge any fee deficiency or credit any overpayment to Deposit Account No. 01-2300, making reference to Attorney Docket No. **106145-00075**.

Respectfully submitted,

A handwritten signature in cursive script, reading "Dawn C. Russell", written over a horizontal line.

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